

Notice of Allowability

Application No.

10/696,300

Examiner

Alain L. Bashore

Applicant(s)

WU ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6-7-07.
2. ☒ The allowed claim(s) is/are 29, 34 and 35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

ALAIN L. BASHORE
PRIMARY EXAMINER

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-7-07 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Paikoff on 8-8-07.

The application has been amended as follows:

Cancel claims 1-9, 30-33, and 36.

Amend claim 29 as follows:

29. In the fabrication of semiconductor integrated circuits, a method for generating a dummy dispense signal, comprising:

- (a) recording a time at which a substrate is processed;
- (b) recording a time at which a volatile solution is dispensed, wherein the time at which the volatile solution is dispensed comprises a last time at which the volatile solution is dispensed;
- (c) ~~comparing the time at which the substrate is processed and the time at which the liquid is dispensed~~ generating a time difference between a move-in time of the substrate and the last time at which the volatile solution is dispensed;
- (d) generating a dummy dispense signal when required; ~~and~~
- (e) recording a recipe for dispensing the volatile solution and a name of the volatile solution,
- (f) performing a dummy dispense when the time difference is larger than, or equal to, a period of time that is long enough to substantially make a solvent of the volatile solution evaporate; and
- (g) determining whether the name of the volatile solution responds to the recipe,
wherein the volatile solution is photoresist.

Amend claim 34 as follows:

34. The method of claim 33 29 further comprising dispensing the volatile solution on the substrate.

Allowable Subject Matter

3. Claims 29, 34-35 are allowed. The drawings filed 10-29-03 are acceptable.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

The present invention includes independent claim 29. Claim 29 recites: in the fabrication of semiconductor integrated circuits, a method for generating a dummy dispense signal.

The admitted prior art is considered the closest prior art. The admitted prior art discloses in the fabrication of semiconductor integrated circuits, a method for generating a dummy dispense of liquid. A time at which a substrate is processed, a time at which liquid is dispensed, a time at which the substrate is processed is a move-in time of the substrate, the time at which the liquid is dispensed comprises a last time at which the liquid is dispensed; and a dummy dispense signal are all disclosed. A photoresist solution that is volatile is also disclosed.

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The admitted prior art does not disclose the claimed combination including:

recording a time at which a volatile solution is dispensed, wherein the time at which the volatile solution is dispensed comprises a last time at which the volatile solution is dispensed;

generating a time difference between a move-in time of the substrate and the last time at which the volatile solution is dispensed;

generating a dummy dispense signal when required; and ,

recording a recipe for dispensing the volatile solution and a name of the volatile solution,

performing a dummy dispense when the time difference is larger than, or equal to, a period of time that is long enough to substantially make a solvent of the volatile solution evaporate; and

determining whether the name of the volatile solution responds to the recipe.

For these reasons claim 29 is deemed to be allowable over the prior art of record, and claims 35-35 are allowable by dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alain L. Bashore/
Primary Examiner
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